IN THE CLAIMS

Claim 1 (original): A method for one-piece injection moulding of a soft needle catheter comprising a hub and a tube-shaped flexible part, comprising the steps of:

-feeding a molten polymer into a mould comprising a core which together define a hub cavity and a tube-shaped cavity, said core having a cone-shaped part within the hub cavity and a cylindrical part, said core being used to form the interior of the catheter;
-removing the core from the catheter when the polymer has been sufficiently cured for the core to be removed; and
-removing the catheter from the mould when the polymer has been sufficiently cured to be removed;

characterized in using a core wherein the cone-shaped part of the core extends into the tube-shaped cavity.

Claim 2 (original): A method according to claim 1, wherein the catheter is cured to it final state in the mould.

Claim 3 (currently amended): A method according to claim 1 ~~or 2~~, wherein the molten polymer is supplied to the mould via at least two inlets preferably the inlets are placed symmetrically around the axis of the core.

Claim 4 (currently amended): A method according to claim 1 ~~any one of claims 1 to 3~~, wherein the inlets are placed at the hub forming part of the mould.

Claim 5 (currently amended): A method according to claim 1 ~~any one of claims 1 to 4~~, wherein the mould separates along the axis of the tube-shaped part.

Claim 6 (currently amended): A method according to claim 1 ~~any one of claims 1 to 4~~, wherein the mould separates perpendicular to the tube-shaped part and at or just below the hub.

Claim 7 (currently amended): A method according to claim 1 ~~any one of claims 1 to 6~~, wherein the polymer is chosen from polyester ethers, ECDEL, styrene based TPE, olefin based TPE, urethane based TPE, ester based TPE, amid based TPE polyolifines and silicone rubbers.

Claim 8 (currently amended): A method according to claim 1 ~~any one of claims 1 to 6~~, wherein the polymer is selected from the group consisting of polypropylene, C-FLEX™, mixtures of C-FLEX™ and polypropylene, LUPOLEN™ 1840H, LUPOLEN™ 3020D, PELLETHANE™ 2363-75D, PELLETHANE™ 2363-55D, TECOTHANE™ and CARBOTHANE™.

Claim 9 (currently amended): A method according to claim 1 ~~any one of claims 1 to 8~~, wherein the polymer has a shore between 40 and 60D.

Claim 10 (currently amended): A method according to claim 1 ~~any one of claims 1 to 9~~, wherein more than one polymer is used in the method.

Claim 11 (original): A soft needle catheter comprising a hub and a tube-shaped flexible part, characterized in that the interior tube-shaped part both has a cone-shaped part and a cylindrical part.

Claim 12 (original): A soft needle catheter according to claim 11, wherein the cylindrical part is placed at the outlet of the tube-shaped part.

Claim 13 (currently amended): A soft needle catheter according to claim 11 ~~or 12~~, wherein the hub is fitted with means for assisting the removal of the catheter from the patient, preferably in form a flap, a rim or a groove.

Claim 14 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 or 13~~, wherein the hub is fitted with at least one carving, preferably two carvings placed opposing each other.

Claim 15 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 14~~, wherein the hub has means for sealing the hub to a drug delivery device, said means being provided on the outside of the hub in form of at least one round going packing, rim or fin or by having a hub with a cone shaped exterior having a size suitable to fit into a cone shaped cavity of a drug delivery device.

Claim 16 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 15~~, wherein the tube-shaped part of the soft needle catheter has a ratio between the cylindrical part and the cone-shaped part in the range from 10:1 to 1:40, preferably the range is from 5:1 to 1:30, more preferably the range is from 2:1 to 1:20 and most preferably from 1:1 to 1:15.

Claim 17 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 16~~, wherein the cylindrical part is 1.5 mm.

Claim 18 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 17~~, wherein the cylindrical part is rounded.

Claim 19 (currently amended): A soft needle catheter according to

claim 11 ~~any one of claims 11 to 18~~, wherein the polymer is chosen from polyester ethers, ECDEL, styrene based TPE, olefin based TPE, urethane based TPE, ester based TPE, amid based TPE polyolifines and silicone rubbers.

Claim 20 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 18~~, wherein the polymer is selected from the group consisting of polypropylene, CFLEX™, mixtures of C-FLEX™ and polypropylene, LUPOLEN™ 1840H, LUPOLEN™ 3020D, PELLETHANE™ 2363-75D, PELLETHANE™ 2363-55D, TECOTHANE™ and CARBOTHANE™.

Claim 21 (currently amended): A soft needle catheter according to claim 11 ~~any one of claims 11 to 20~~, wherein the catheter is composed from more than one polymer.

Claim 22 (original): A mould comprising a hub cavity, a tube-shaped cavity and a core having a cone-shaped part and a cylindrical part, characterized in that the cone-shaped part of the core extends into the tube-shaped cavity.

Claim 23 (currently amended): Use of a catheter according to claim 11 ~~any one of claims 11 to 21~~ intravenously or subcutaneously preferably for intravenous or subcutaneous injection of a drug.